

Technical Analysis and Findings

Utah Coal Regulatory Program

PID: C0410002
TaskID: 4702
Mine Name: SUFCO MINE
Title: WASTE ROCK REVISED SOIL STORAGE PILE QUANTITIES

Operation Plan

Topsoil and Subsoil

Analysis:

Topsoil salvage volumes from the Lift #5 expansion were first received on June 30, 2014 and returned deficient July 1, 2014. A second submittal was received on October 9, 2014. The lift expansion soils were combined with the existing volumes in topsoil stockpiles 2 and 3 as shown in the table on WRDS page 3-5 and shown on Map 2 v.7.

Where previously topsoil pile #2 held 161.4 cu yds and topsoil pile #3 held 138 cu yds, the total volume now contained in the combined pile is 4,114 cu yds., meaning that 3,814.6 cu yds were added to the pile from the lift expansion.

This additional volume of topsoil (3,814.6 cu yds reflects a salvage depth of four feet from the 0.54 acre expansion). Although the plan based soil salvage on boring B-1 and expected approximately 12 inches of topsoil and planned for 18 inches (11,300 cu yds) to be salvaged (p. 2-9), this additional volume of topsoil/subsoil may be due to a buried topsoil horizon mentioned in the 1987 soil survey. It is unfortunate that the Division was not contacted during the work so that the soils could have been examined in place.

However, the 1987 soil survey does discuss a buried A horizon that was 90 cm deep (35 inches) just above the fluctuating water table which sits at approximately 6 ft deep (Vol 3 App V and VI of the MRP). Therefore it is hoped that this excess material above the 18 inches states as being either livehauled or placed in the topsoil stockpile was buried topsoil and not subsoil. Currently there is no explanation in the narrative for the WRDS site and no reference to the original soil survey information.

Deficiencies Details:

R645-301-231.100, Using redline strikeout format, please provide an explanation of the increased volume of soil salvaged from the Lift #5 expansion in the narrative (p. 2-9) and supporting details for the 3,814 cu yd of soil removed from the 0.54 acre Lift #5 expansion. Was the buried topsoil confirmed as described in App V and VI of Vol 3? Was a soil scientist on site during the soil removal? Was a profile description logged?

R645-301-231.400, Provide dimensions of the combined Lift #5/topsoil #2/topsoil #3 pile (height, width and length) in the narrative and provide two cross-sections of the pile tied to the outline of the pile and contours shown in Map 2v7.

R645-301-234.230, Please provide confirmation of the seeding and mulching procedures used at the site, and provide a copy of the seed tag.

R645-301-121.300, Changes on page 2-20 and WRDS 3-4 must be shown in redline/strikeout.

